

FIG. 1

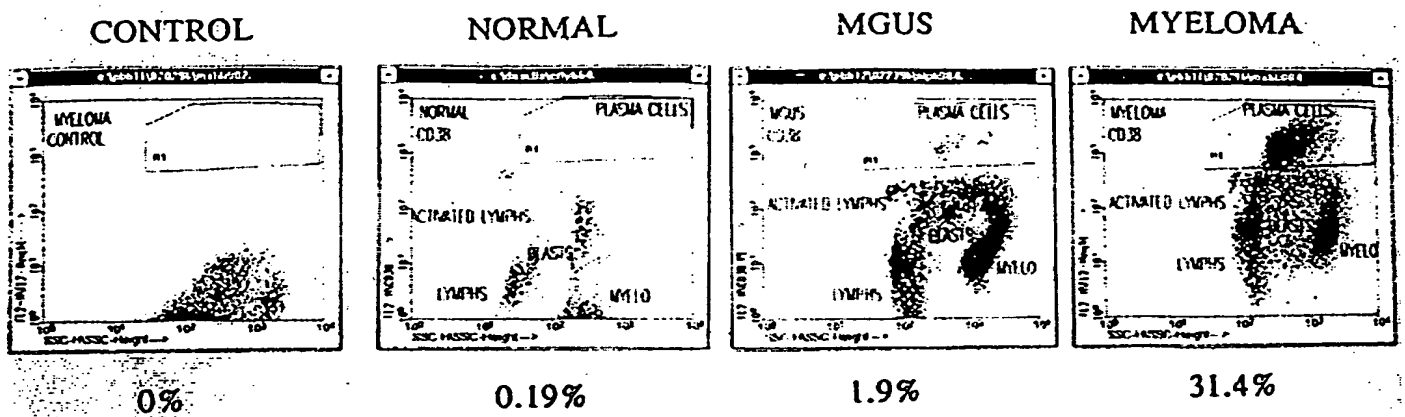


FIG. 2

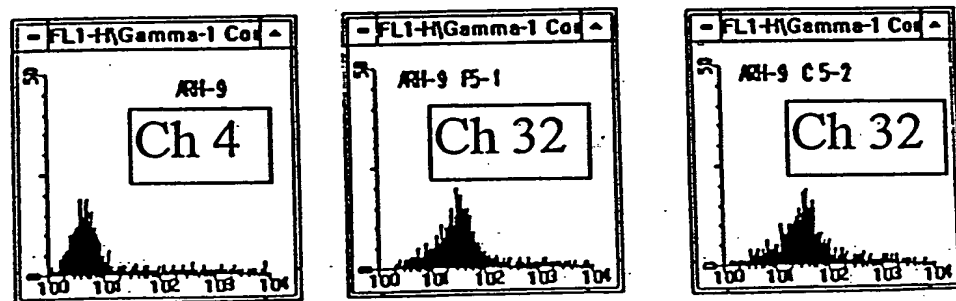


FIG. 3

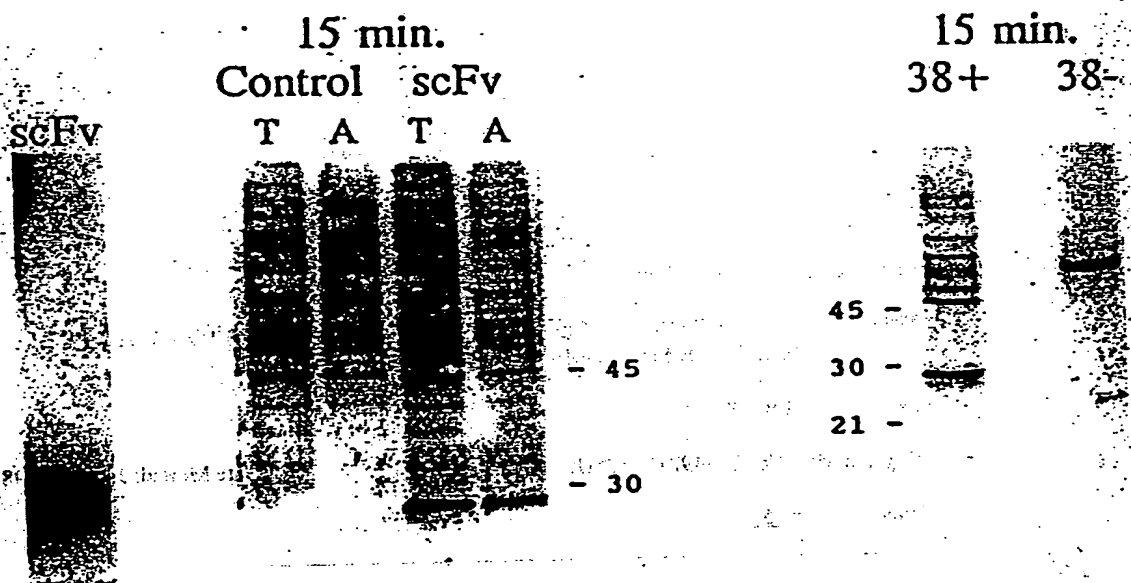


FIG. 4

ANTI-CD38 scFv

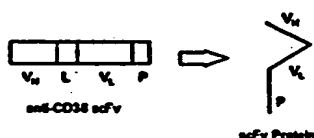


FIG. 5

ANTI-CD38 scFv



FIG. 6

S H
aCa B CCCB CBG aAa B BC Cs Hgl PaAO s a C 8 CB C
uve sBavvsDEBEvsdHeveMsMMAsvBvpNioaPvuviPpBuSVSB6SSTvsTv
9ii rgciiasabaiaiaIaIspswloisiAcnAlsu9a0l5f9fiff4ttsiosi
6JI Fl8JJJaeveJJJeIIICgpouFJLRlofiitI6I9aIa6cJia7yyeRFeJ
III IXXXXXXXXXXXXXXXXXXXXXVIIIIXXXXXXXXXXXXXXXXXXXXXX
/
ggccagcgccggaATGGCCAAGGTCCAGCTGCAGGAGTCAGGACCTAGCCTAGTGCAGCC
+-----+-----+-----+-----+-----+-----+-----+-----+ 60
ccgggtcggcggtTACCGGTTCCAGGTTCGACGTCCTCAGTCTGGATCGGATCACGTCCG

G P A G H G Q G P A A G V R T * P S A A
A Q P A M A K V Q L Q E S G P S L V Q P
P S R P W P R S S C R S Q D L A * C S P

M BHHCAMB v p l s CM5V sr
W bshwjens i p w m jsOs rs
o vgaNeilg R M NA ee9p Ga
I IIIIIII I I I I IIII
/
CTCACAGCGCCTGTCCATAACCTGCACAGTCTCTGGTTTCTCATTAATTAGTTATGGTGT
+-----+-----+-----+-----+-----+-----+-----+-----+ 120
GAGTGTCGCGGACAGGTATGGACGTGTCAGAGACCAAGAGTAATTAATCAATACCACA

L T A P V H N L H S L W F L I N * L W C
S Q R L S I T C T V S G F S L I S Y G V
H S A C P * P A Q S L V S H * L V M V Y

U CT E C BS CC
b B B Bjs B o sc B v j M B
a p f sep s R mr s i e n p
C m i rPR r I AF l J P l m
I I I III I I II I I I I I
/
ACACTGGGTTCGCCAGTCTCCAGGAAGGGTCTGGAGTGGCTGGGAGTGATATGGACAGG
+-----+-----+-----+-----+-----+-----+-----+-----+ 180

FIG. 6 (con't)

TGTGACCCCAAGCGGTCAGAGGTCCTTTCCAGACCTCACCGACCTCACTATACCTCTCC

T L G S P V S R K G S G V A G S D M E R -
H W V R Q S P G K G L E W L G V I W R G -
T G F A S L Q E R V W S G W E * Y G E V -

	N			
CB C	l B	H	B S	
vsTAV	aBs	HD i	ss f	
iosli	Ibp	pd n	at a	
RFewJ	IvG	he 4	Jy N	
IIIII	III	II I	II I	

181 TGG AAGCACAGACTACAATGCAGCTTTTCATGTCCAGACTGAGCATCACCAAGGACAATC 240
ACCTTCGTGTCTGATGTTACGTCGAAAGTACAGGTCTGACTCGTAGTGGTTCCTGTTGAG

W K H R L Q C S F H V Q T E H H Q G Q L -
G S T D Y N A A F M S R L S I T K D N S -
E A Q T T M Q L S C P D * A S P R T T P -

C		CC C	T
v	MD	v a Av	S
i	sr	i c li	P
J	ea	R 8 uJ	R
I	II	I I II	I

241 CAAGAGCCAAGTTTTCTTTAAAATGAACAGTCTGCAAGCTGATGACACTGCCATATACTT 300
GTTCTCGGTTCAAAAGAAATTTTACTTGTTCAGACGTTTCGACTACTGTGACGGTATATGAA

Q E P S F L * N E Q S A S * * H C H I L -
K S Q V F F K M N S L Q A D D T A I Y F -
R A K F S L K * T V C K L M T L P Y T S -

	S H S
B C	a CBaN A NB Pa
S V	B uBvsels vHlsDsu
c i	f 9siaIat apaash9
G J	i 6rJJIIy IhIJJaA6
I I	I IIIIIVI IIVIIII

301 CTGTGCCAAAACCTTGATTACGACGGGCTATGCTATGGACTACTGGGGCCAAGGGACCAC 36
GACACGGTTTTGGAACATAATGCTGCCGATACGATACCTGATGACCCCGGTTCCCTGGTG

L C Q N L D Y D G L C Y G L L G P R D H -
C A K T L I T T G Y A M D Y W G Q G T T -
V P K P * L R R A M L W T T G A K G P R -

BMT	B				S
Bsas B	BBs			C	a
step s	ssuDM	M A	MM AE	M v	A
					AEu D

eBI4 m	mm3dn	h c	nw	cc	w i	c	cc3 p
RII5 F	AB6el	l i	lo	ii	o J	i	iiA n
IIII I	IIIII	I I	II	II	I I	I	III I

GTTCACCGTCTCCTCAGGTGGAGGCGGTTTCAGGCGGAGGTGGCTCTGGCGGTGGCGGATC

FIG. 6 (con't)

361 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 420
CCAGTGGCAGAGGAGTCCACCTCCGCCAAGTCCGCCTCCACCGAGACCGCCACCGCCTAG

G H R L L R W R R F R R R W L W R W R I -
V T V S S G G G G S G G G G S G G G G S -
S P S P Q V E A V Q A E V A L A V A D R -

		B						T
		Bs						MTt
		sp						
H		CBi1	B	B		B		BHHash
i	A T	AvaH2DFSS	BS	M	s B	H		siiep1
n	l a	linK8doaa	cm	n	m f	p		annI41
4	w q	uJIA6ekcX	ca	l	A a	h		X4fI51
I	I I	IIIIIIIIII	II	I	I I	I		IIIIII

GGACATCGAGCTCACTCAGTCTCCATCCTCCTTTTCTGTATCTCTAGGAGACAGAGTCAC
421 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 480
CCTGTAGCTCGAGTGAGTCAGAGGTAGGAGGAAAAGACATAGAGATCCTCTGTCTCAGTG

G H R A H S V S I L L F C I S R R Q S H -
D I E L T Q S P S S F S V S L G D R V T -
T S S S L S L H P P F L Y L * E T E S P -

				E		E
	C			CcS		C S
P	V	M		VOC		o c
l	i	n		iRr		R r
e	R	l		JIF		I F
I	I	I		III		I I

CATTACTTGCAAGGCAAGTGagGACATATATAATCGGTTAGCCTGGTATCAGCAGAAACC
481 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 540
GTAATGAACGTTCCGTTCACTcCTGTATATATTAGCCAATCGGACCATAGTCGTCTTTGG

H Y L Q G K * G H I * S V S L V S A E T -
I T C K A S E D I Y N R L A W Y Q Q K P -
L L A R Q V R T Y I I G * P G I S R N Q -

	A B C			C		N
	VBSS	V	M	V	B	B l
	rfat	i	s	i	s	f s a
	IaJy	J	e	R	r	i r I
	IIII	I	I	I	I	I I V

AGGAAATGCTCCTAGGCTCTTAATATCTGGTGCAACCAGTTTGGAACCTGGGGTTCCCTTC
541 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 600
TCCTTTACGAGGATCCGAGAATTATAGACCAAGTTGGTCAAACCTTTGACCCCAAGGAAG

R K C S * A L N I W C N Q F G N W G S F -
G N A P R L L I S G A T S L E T G V P S -
E M L L G S * Y L V Q P V W K L G F L Q -

		S			E	
H	T	Ba T			C	M
it	s	suds	A		Do	Bb B
nf	p	t3pp	l		d5	bo s

fi R YAnR w e7 sI r

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation $f(x) = \int_0^x f(t) dt$. It is shown that the function $f(x)$ is continuous and differentiable on the interval $[0, 1]$. The derivative of $f(x)$ is equal to $f(x)$ itself. This implies that $f(x)$ is an exponential function. The initial condition $f(0) = 1$ determines the function uniquely as $f(x) = e^x$.

K I Q W Q W I W K G L H S Q H Y Q S S D -
R F S G S G S G K D Y T L S I T S L Q T -
D S V A V D L E R I T L S A L P V F R L -

M	E	H		U	M		A
b	c	i	c	RSb	a	BM	v
o	o	n	j	sca	e	sn	a
I	5	c	e	aaC	I	ll	I
I	7	I	I	III	I	II	I

661 TGAAGATGTTGCTACTTATTACTGTCAACAGTATTGGAGTACTCCTACGTTCCGGTGGAGG 720
-----+-----+-----+-----+-----+-----+
ACTTCTACAACGATGAATAATGACAGTTGTCATAACCTCATGAGGATGCAAGCCACCTCC

* R C C Y L L L S T V L E Y S Y V R W R -
E D V A T Y Y C Q Q Y W S T P T F G G G -
K M L L L I T V N S I G V L L R S V E G -

S					H
Na	C	B	B	B C BB Ga	
lu	Av	s	s	AsEvAssEdenTT	
a9	li	m	c	coalcioaiIoaa	
I6	uJ	F	G	iFeJiEFgIIItuu	
VI	II	I	I	IIIIIIIIIIIIIIII	

721 GACCAAGCTGGAAATCAAACGGGCGGCCGC
-----+-----+-----+ 750
CTGGTTCGACCTTTAGTTTGCCCGCGGGCG

D Q A G N Q T G G R
T K L E I K R A A
P S W K S N G R P